



DOD Standardization Conference

Parts Management Initiatives Panel

Defense Parts Management Portal

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Parts Management

- Parts management is a vital component of the acquisition and sustainment processes
- Comprehensive parts management addresses the totality of parts-related organizations, processes, materiel, and management required for a weapon system throughout its life cycle

Parts Management is not Parts Control

- **Parts Control was defined by MIL-STD-965**
- **Parts Management encompasses far more**
- **Cancellation of MIL-STD-965 had profound effects**

Positives

- + OEMs free from prescriptive requirements
- + Greater flexibility for creativity and innovation

Negatives

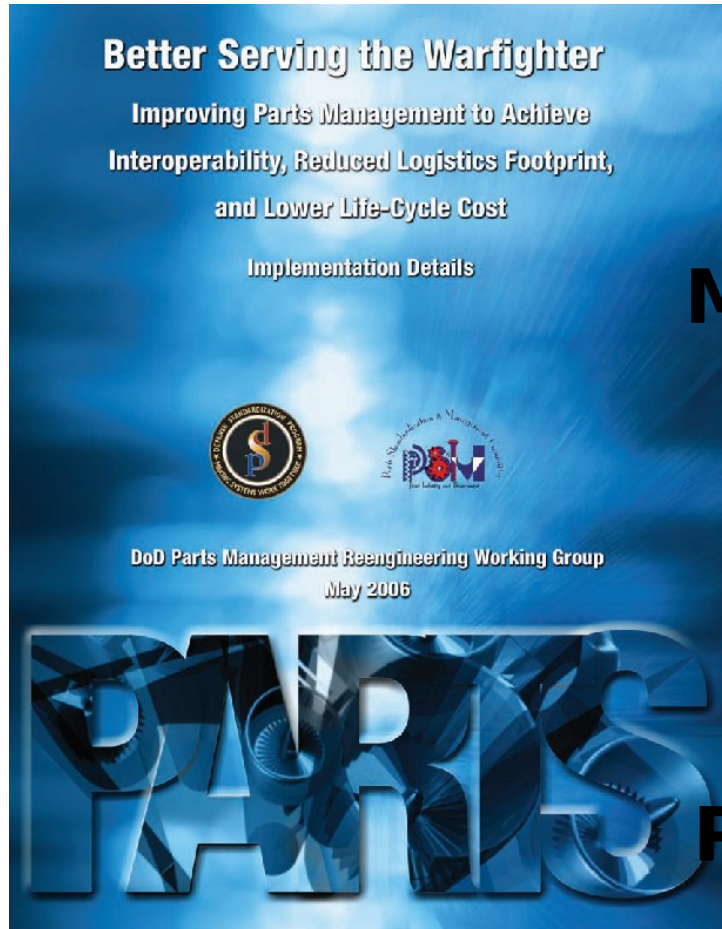
- Discipline of parts management largely disappeared
- Parts proliferation increased
- Obsolescence issues increased

Parts Management

Part Selection

- **Selecting optimum parts for a system is a crucial element of the design phase of an acquisition program.**
- **Collectively, parts are primary determinants of system reliability, maintainability, supportability, and availability**
- **As well as of logistics readiness, interoperability, logistics footprint, and total ownership costs.**
- **Proper parts selection requires consideration of myriad factors**
 - Technical characteristics
 - Part reliability
 - Cost
 - Commonality
 - Performance
 - part and supplier quality
 - Qualification
 - Potential obsolescence
 - Standardization

Background



2004
**DSPO Chartered the Parts
Management Reengineering
Working Group (PMRWG)**

2005
PMRWG Issued Final Report

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Recommendations

- **Restore parts management as an engineering discipline**
- **Make parts management a policy and a contractual requirement**
- **Develop tools that provide accurate, current information for parts management**
 - **Create a Defense Parts Management Portal**

Implementation



2006 - Parts Management Reengineering Implementation Project Team Chartered

- Implement Recommendations
Three Working Groups

2007 - Transition to Parts Standardization Management Committee (PSMC)

- Sustain & Expand

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Issues

- **Parts management is difficult**
 - Data in numerous, diverse information systems
 - Systems cannot communicate or exchange data
 - Some systems are old and difficult to use
 - Data are duplicative, incomplete, or inaccurate

- **Parts management is costly**
 - Part and component selection
 - Cataloging / documentation
 - Logistics support / footprint management
 - DMSMS

Key Objectives

- **Improve parts management throughout DOD**
- **Enable more efficient and effective parts management**
- **Provide improved access to parts data and tools**
- **Improve quality of parts data**
- **Promote and support increased standardization**
- **Improve communication and collaboration**
- **Promote data sharing and parts-related research**
- **Improve parts data integration - government and industry**
- **Lower costs**

DPMP Concept

User Created Content

- **DPMP employs a different design approach from most government portals.**
- **Resources accessed through the DPMP are user-created content**
- **Approach has worked with considerable success in the private sector**
 - Wikipedia
 - YouTube
 - Facebook

DPMP Concept

Business Rules Govern Content

- **DPMP open to the general public**
- **Business rules govern content**
- **DPMP resides at GIDEP**
- **Participating organizations must obtain a GIDEP account**
- **Organizations granted administrative rights and control**
- **Organizations manage a dedicated interface page**
- **Content providers may limit access**

DPMP Concept

Portal is a Navigation Tool

- **Single point of entry**
- **Web accessible Information related to parts management**
- **Easy navigation to**
 - organizations with parts management-related roles or responsibilities
 - parts and components sources
 - tools, services
 - information resources
 - documents, policies, and templates

DPMP Concept

Lean Design

- **Keep the technical content on server small**
- **Complex resources or tools reside on content provider servers**
- **GIDEP server portion largely navigation**
- **External resources reached through bridge page**

DPMP Concept

Provide a Market Framework

- **The DPMP provides functional framework**
 - logical navigation pathways
 - Tools
 - interface capabilities
- **Connects users with content providers**
- **Users access resources via logical navigation structure**
- **DPMP is marketplace for the parts management community**
- **Content determined by what providers offer potential customers**
- **Impact determined by degree resources offered are accessible, accurate, and useful**

- Lists
- Announcement Test
- Sites
- Community Connection
- Knowledge Sharing & Collaboration
- Life Cycle Parts Management
- Tools and Services
- Part and Component Sources
- Part Information Repositories
- Education and Training
- Information Resources
- Recycle Bin



What's New

Text to describe dynamic items that will change regularly. Of interest to most portal users and sometimes specific subgroups of the portal community.

Community Connections

- | | | |
|------------------------|---------------|---------------|
| • OEMs | • Bullet Item | • Bullet Item |
| • Parts Manufacturer | • Bullet Item | • Bullet Item |
| • Parts Data Companies | • Bullet Item | • Bullet Item |

Information Repositories

- | | | |
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Share Knowledge and Collaborate

Education and Training

Text to describe the opportunities for training. Organizations that provide relevant parts management training, including government, academia, associations, etc.

Parts and Component Sources

- Manufacturing
- Suppliers and Distributors
- Recycling Companies and Secondary Market
- Qualified/Certified Sources
- Buying and Purchasing

LC Part Management

- Concept
- Technical Development
- SDO

PM Tools and Services

- Part Locator
- Information Sources

DPMP Concept

General Features

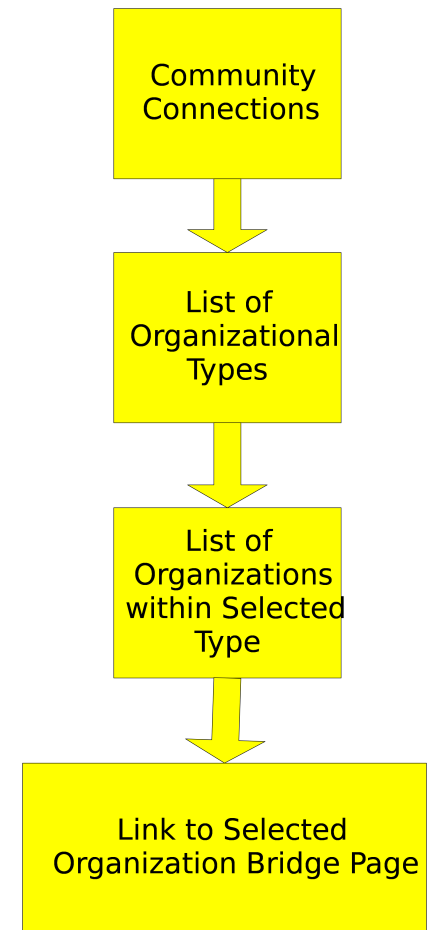
- **Search the DPMP**
- **About DPMP**
- **What's New**
- **Calendar**
- **Site Map**
- **Feedback**
- **Navigation Tracking**

DPMP Concept Navigation Options

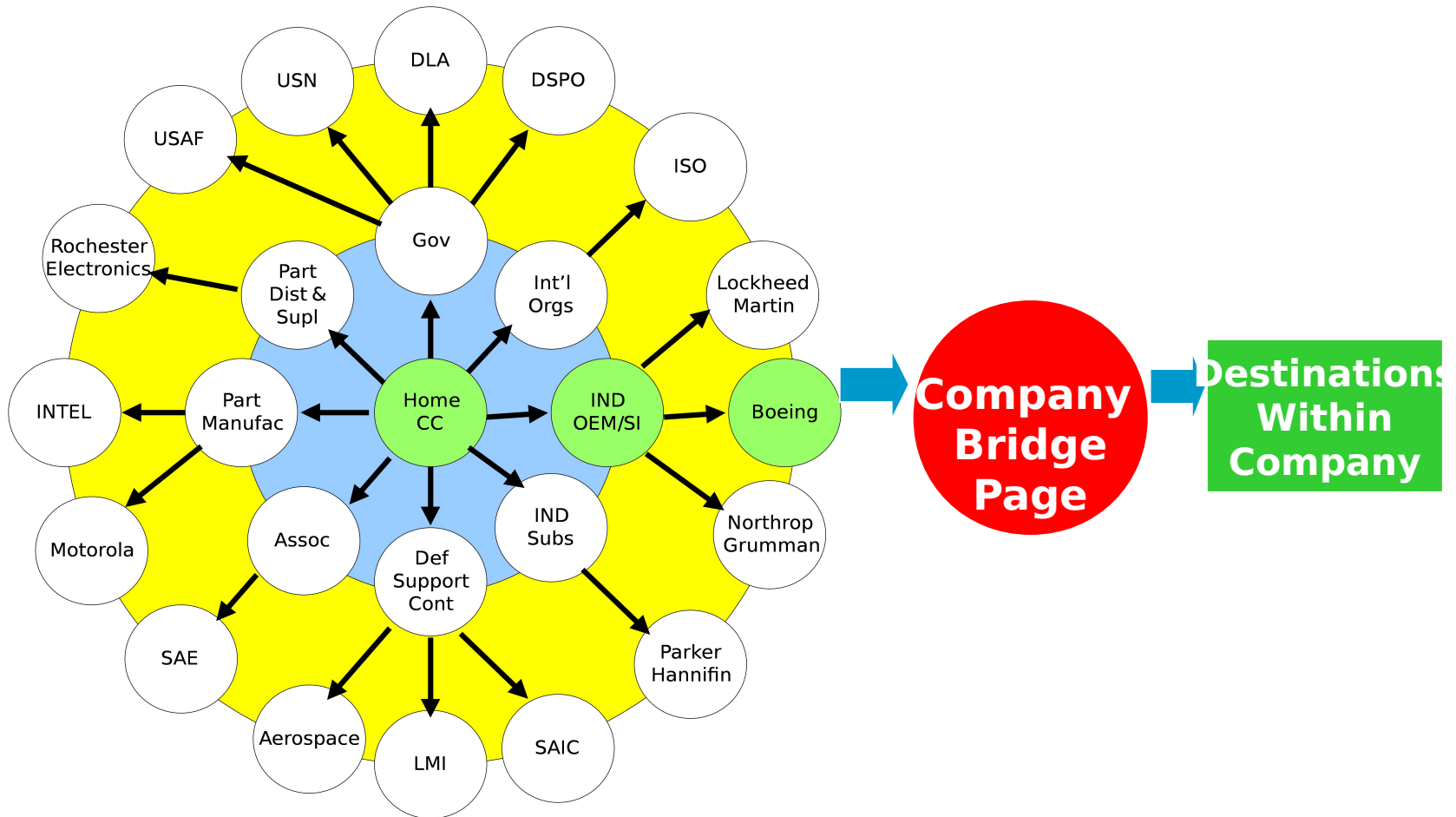
- **Community Connection**
- **Knowledge Sharing and Collaboration**
- **Life-Cycle Parts Management**
- **Tools and Services**
- **Part and Component Sources**
- **Part Information Repositories**
- **Education and Training**
- **Information Resources**

Community Connections

- **Bring government and industry together in a shared portal.**
- **Each participating organization is a navigation destination.**
- **Menu structured by organizational type**
 - Government
 - Industry: OEMs and systems integrators
 - Industry: Sub Tier suppliers
 - Part and component manufacturers
 - Part suppliers and distributors
 - Defense support contractors
 - Associations
 - International organizations
- **This navigation structure will help users quickly drill down to a desired destination in three or four menu choices (or mouse clicks) T**



Navigation Architecture



Notional Bridge Page



**Links
back
to
Portal:**
*to be
consiste
nt with
Portal
look,
feel and
navigati
on*

Products:

- Nuts
- Bolts
- Fasteners

Points of Contact:

- Jane Doe ~ jane@doe.com
- John Oem ~ john@oem.com
- OEM/parts user group ~ address

Profile:

- What we do
- Parts Issues we face

Places:

- U.S. East Coast
- U.S. West Coast
- International

Policy on Parts:

- Parts Mission
- Policy specifics
- Policy POC

Programs:

- Parts Management
- Intra-Organizational Parts Management efforts

Projects related to Parts Management:

- Initiative on Parts Management
- Cross-Industry Project on Parts Management
- Weapon System Parts Management Design Considerations

Papers and Pool of Records:

- White Paper Library
- Other PM references

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DPMP Bridge Page

- **Each destination organization “owns” its bridge page**
 - Bridge page contains information about the organization
- **Connects users to points of contact, catalogs, tools, or other resources**
 - Provides connectivity between buyers and suppliers
- **Organization determines what it will make available**
 - Organization determines how the offering will be presented
- **Each bridge page opens in a separate window**
 - Ensures users can easily return to the DPMP

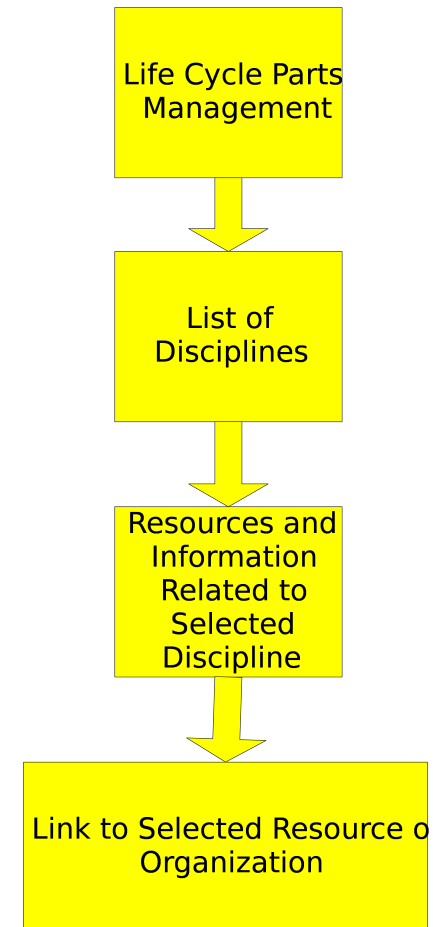
Life-Cycle Parts Management

Disciplines (such as)

- Systems engineering
- Configuration management
- Reliability engineering
- Quality management
- Standardization
- Cataloging

For each discipline (useful resources)

- Key organizations
- Policies, procedures, and standards;
- Training
- Tools
- Best practices
- Activities and tasks



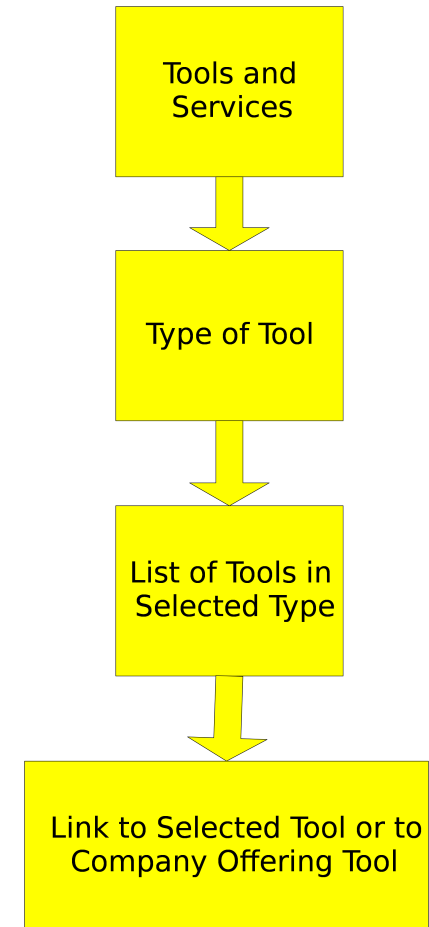
Tools and Services

Example Tools

- Weapon System Impact Tool
- Generic Compound Analysis Tool
- PinPoint
- ASSIST
- DMSMS and Obsolescence Tools
- GIDEP
- E-Mail
- Federal Logistics Information System (FLIS)

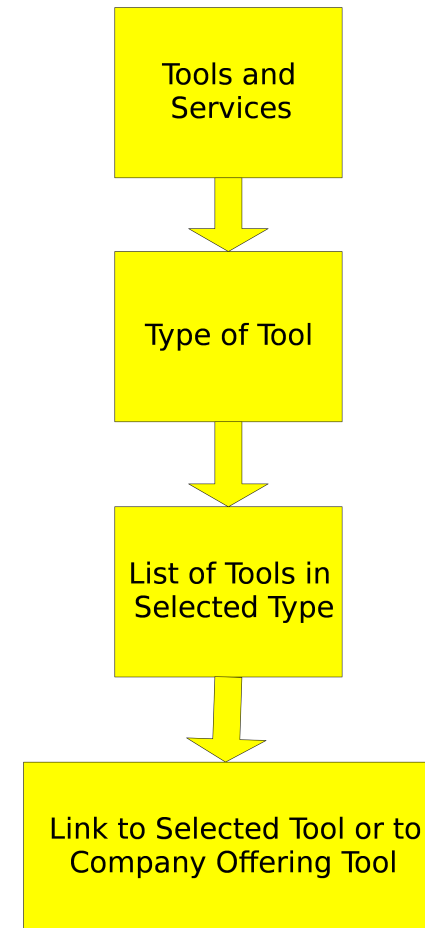
No Cost or Fee for Service

- No cost to user and for a fee or license
- Accommodates revenue models of participating organizations

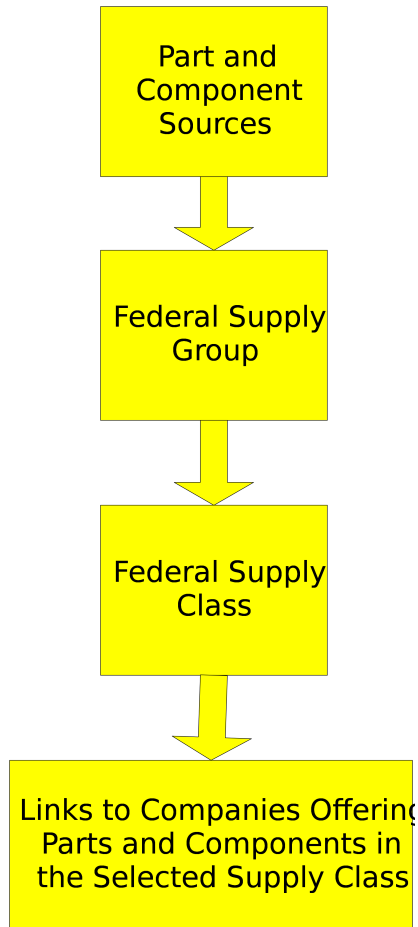


Tools Organized into Categories Based on What the Tool Does

- **Part Selection**
- **Cost Analysis**
- **Performance Measurement**
- **Reliability Analysis**
- **Obsolescence Analysis**
- **General Search Tools**



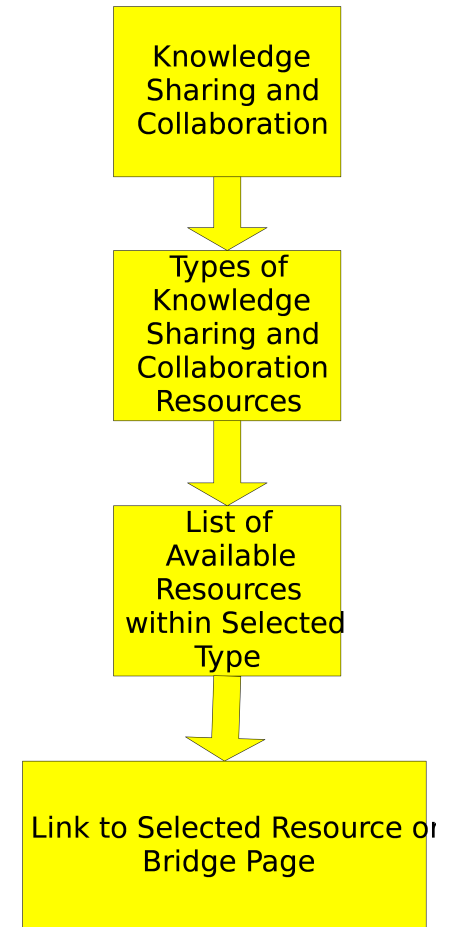
Part and Component Sources



- **Find sources of parts and components based on FSG/FSC**
- **Source list drawn from existing relational database**
- **Each listed source name has hotlink to company bridge page or website**

Knowledge Sharing and Collaboration

- **Communities of Practice**
- **Team Collaboration Space**
- **Best Practice Exchange**
- **Data Exchange Resources**
 - GIDEP
- **DMSMS Data Sharing**
- **On-line Meeting Resources**
 - Go-To Meeting



Approach

- **Rapid development & launch**
- **Employ spiral development**
- **Evolve through customer-driven requirements**
- **Integrate DMSMS**
- **Use NATO / DLIS data exchange standard**
- **Use COTS technologies**

A Work in Progress

- **Portal will be shaped by its user community**
- **Organizations not listed may ask to be listed**
- **Organizations may ask their supply chain organizations to become involved**
- **Navigation pathways and logic will evolve as users suggest improvements**
- **Content providers must provide accessible, accurate, and useful information**

Questions?

Backup Slides

Part Selection

- Lists**
- Announcement Test
- Sites**
- Community Connection
- Knowledge Sharing & Collaboration
- Life Cycle Parts Management
- Tools and Services
- Part and Component Sources
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- Information Resources
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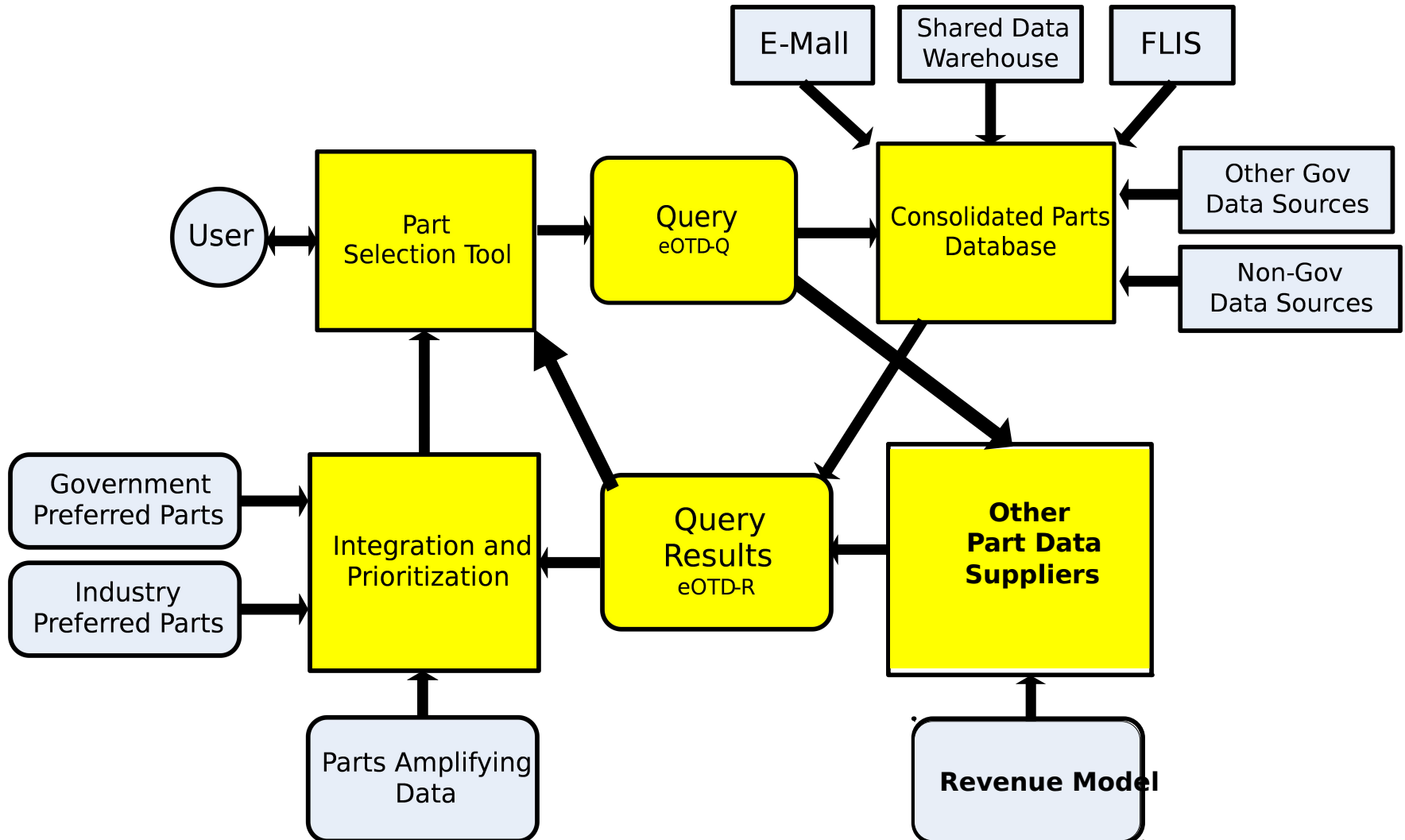
- Part Locator
- Information Sources

**Find
a
Part**

Part Selection Capability - Purpose















- **Promote Use of Gov/Industry *Preferred Parts***
- **Enable Standard Queries (eOTD-Q) using Parametric Data (everyone can receive & respond)**
- **Enable Rapid Informed Part Selection**
 - Increase Standardization and Commonality
 - Reduce Logistics Footprint
 - Lower Future DMSMS Events
 - Lower Cost and Increase Availability

Part Selection Capability



Parametric Search

Parametric National Stock Number (NSN) Search

 	INC - Item Name Code	▼	equals	▼	31779	<input type="radio"/> 🔍
▶  	FEATURES PROVIDED (CBBL)	▼	equals	▼	ELECTROSTATIC SENSITIVE	<input type="radio"/>
▶  	OUTPUT LOGIC FORM (CQWX)	▼	equals	▼	TRANSISTOR-TRANSISTOR LOC	<input checked="" type="radio"/>
▶  	FEATURES PROVIDED (CBBL)	▼	equals	▼	SCHOTTKY	<input type="radio"/>
▶  	INCLOSURE CONFIGURATION (C	▼	equals	▼	DUAL-IN-LINE	<input checked="" type="radio"/>
▶  	TERMINAL TYPE AND QUANTITY	▼	equals	▼	16 PRINTED CIRCUIT	<input type="radio"/>
▶  	OPERATING TEMP RANGE (AFG/	▼	equals	▼	-55.0 TO 125.0 DEG CELSIUS	<input type="radio"/>

Backup Slides

DMSMS

AIA - OSD Tiger Team

- **Working to develop a Plan of Action**
 - Conceive pilot projects
 - Identify policy compliance problems
 - Propose policy recommendations
 - Devise a method to track progress
- **Lockheed Martin, Raytheon, Boeing, Northrop Grumman and Bell Helicopter have all made verbal commitments to support this approach**
- **Expand Portal Team to include greater participation by Industry and Services**

DMSMS Data Sharing Project

- **Bills Of Material**
 - GIDEP
- **Case Resolution Data**
 - GIDEP (SDW / ODR)
- **Production Discontinuance Notices**
 - GIDEP
- **Preferred Parts Lists**

Issues related to all of these are being worked via the AIA - OSD Tiger Team

DOD DMSMS Organization

OSD Leadership

DUSD / L&MR

ADUSD (L&MR) / SCI

Director, DSPO

Committee Structure

Outreach

Common Use Tools

Conference

FMS Interoperability

Training

Membership

Voting Members

- **Air Force**
- **Army**
- **Navy**
- **Marine Corps**
- **DLA**
- **OSD - DSPO**

Advisory Members (7)

Associate Members (14)

Industry Liaison (9)

Academia (2)

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System-Level DMSMS Management Working Group

- **DMSMS tools, databases and research are exclusively focused on managing the obsolescence of individual electronics parts, and in some cases groups of electronic parts**
- **Increasing portion of the DMSMS management problem is at higher-levels of assembly, i.e., the LRU-level and higher**
 - For many organizations, the “components” that need DMSMS management are not individual electronic parts, but COTS items such as laptop computers, routers, switches, and a host of other hardware items composed of electronic, non-electronic, and software content
 - These organizations design, procure and support systems that never directly involve procuring or managing individual electronic parts (e.g., chips)
 - While these organizations are using some of the same mitigation approaches to manage their DMSMS problems as the part-level obsolescence community, they also have unique DMSMS problems

System-Level DMSMS Management Working Group

- **Issues to be addressed include, but are not limited to the following:**
 - COTS LRU obsolescence forecasting and mitigation
 - Correlation, or lack thereof, between individual electronic part obsolescence and COTS LRU obsolescence
 - Software obsolescence forecasting and mitigation
 - DMSMS co-sustainment of hardware and software
 - Roadmap and policy driven DMSMS management constraints
 - Constraint and schedule driven refresh planning

System-Level DMSMS Management Working Group

- **Formation of a system-level DMSMS working group, and possible Aging Aircraft and DMSMS Conference sessions**
 - Would facilitate the inclusion of organizations who are managing system-level obsolescence problems today, and have little connection to individual electronic part-level forecasting and part-level specific management solutions